

Name: _____

p1105: Factoring when $a = 1$ (v10)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5 . Focus on finding factor pairs of -24 . Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 - x - 42$

2. Factor $x^2 - 10x + 16$

3. Factor $x^2 + 11x + 18$

4. Factor $x^2 - 3x + 2$

5. Factor $x^2 + 2x - 48$

6. Factor $x^2 + 10x + 9$

7. Factor $x^2 - 9x + 8$

8. Factor $x^2 - 8x + 15$

9. Factor $x^2 + 6x - 27$

10. Factor $x^2 - 4x - 45$

11. Factor $x^2 + 4x + 3$

12. Factor $x^2 - 81$

13. Factor $x^2 - 2x - 3$

14. Factor $x^2 - 3x - 40$

15. Factor $x^2 - 13x + 36$